

**Fig. 1**

	I-ORF3-->			I-ORF2-->		
	5110v	5120v	5130v	5140v	5150v	5160v
-BURMA	TGAATGAATAACATGTCTTTTGTGCGCCCATGGGTTTCGCGACCATGCGCCCTCGGCCT					
	GAATGAATAACATGT TTTGCTGCGCCCATGGGTTTCGC ACCATGCGCCCT GGCCT					
-MEXICO	CTGAATGAATAACATGTGGTTTGTGCGCCCATGGGTTTCGCCACCATGCGCCCTAGGCCT					
	5170v	5180v	5190v	5200v	5210v	5220v
-BURMA	ATTTTGTGCTGCTCCTCATGTTTTTGCCTATGCTGCCCCGCGCCACCGCCCGGTGAGCCG					
	TTTTG TG TG TCCTC TGTTT TGCCTATG TGCCCCGCGCCACCG CCGGTGAGCCG					
-MEXICO	CTTTTGTGCTGTTGTTCTCTTGTCTTCTGCCTATGTTGCCCCGCGCCACCGACCGGTGAGCCG					
	5230v	5240v	5250v	5260v	5270v	5280v
-BURMA	TCTGGCCGCGCGTCTGTTGGGCGGCGCAGCGCGGTTCCGGCGGTGGTTTCTGGGGTGACCCG					
	TCTGGCCGCGCGTCTGTTGGGCGGCGCAGCGCGGTT CCGGCGGTGGTTTCTGGGGTGACCCG					
-MEXICO	TCTGGCCGCGCGTCTGTTGGGCGGCGCAGCGCGGTACCGGCGGTGGTTTCTGGGGTGACCCG					
	5290v	5300v	5310v	5320v	5330v	5340v
-BURMA	GTTGATTCTCAGCCCTTCGCAATCCCCTATATTTCATCCAACCAACCCCTTCGCCCCCGAT					
	GTTGATTCTCAGCCCTTCGCAATCCCCTATATTTCATCCAACCAACCCCTT GCCCC GA					
-MEXICO	GTTGATTCTCAGCCCTTCGCAATCCCCTATATTTCATCCAACCAACCCCTTTCGCCCCAGAC					
	I-406.4-2-->					
	5350v	5360v	5370v	5380v	5390v	5400v
-BURMA	GTCACCGCTGCGGCGGGGCTGGACCTCGTGTTTCGCCAACCCGCCCCGACCACTCGGCTCC					
	GT CCGCTGCG CCGGG CTGGACCTCG TTCCGCCAACC GCCCC CCACT GGCTCC					
-MEXICO	GTTGCCGCTGCGTCCGGGTCTGGACCTCGCCTTCGCCAACCAGCCCGGCCACTTGGCTCC					
	5410v	5420v	5430v	5440v	5450v	5460v
-BURMA	GCTTGGCGTGACCAGGCCCCAGCGCCCCCGCGTTGCCTCACGTGCTAGACCTACCACAGCT					
	CTTGGCG GA CAGGCCCCAGCGCCCC CCG TGCCTC CGTCG GACCT CCACAGC					
-MEXICO	ACTTGGCGAGATCAGGCCCCAGCGCCCCCTCCGCTGCCTCCCGTCGCCGACCTGCCACAGCC					
	<--406.4-2-I					
	<-ORF3--I					
	5470v	5480v	5490v	5500v	5510v	5520v
-BURMA	GGGGCCGCGCGCTAACCGCGGTTCGCTCCGGCCCCATGACACCCCGCCAGTGCCCTGATGTC					
	GGGGC GCG CGCT AC GC GT GC CC GCCCATGACACC C CC GT CC GA GT					
-MEXICO	GGGGCTGCGGCGCTGACGGCTGTGGCGCCTGCCCATGACACCTACCCGTCCCGGACGTT					
	5530v	5540v	5550v	5560v	5570v	5580v
-BURMA	GACTCCCGCGGCGCCATCTTGCGCCGCGAGTATAACCTATCAACATCTCCCTTACCTCT					
	GA TC CGCGG GC AT T CGCCG CAGTATAA T TC AC TC CCCCT AC TC					
-MEXICO	GATTCFCGCGGTGCAATTCTACGCCGCCAGTATAAATTTGTCTACTTCACCCCTGACATCC					
	5590v	5600v	5610v	5620v	5630v	5640v
-BURMA	TCCGTGGCCACCGGCACTAACCTGGTTCTTTATGCCGCCCTCTTAGTCCGCTTTTACCC					
	TC GTGGCC C GGCACTAA T GT CT TATGC GCCCC CTTA TCCGC T T CC					
-MEXICO	TCTGTGGCCTCTGGCACTAATTTAGTCTGTATGCAGCCCCCTTAATCCGCCTCTGCCG					

Fig. 2A

	5650v	5660v	5670v	5680v	5690v	5700v
-BURMA	CITTCAGGACGGCACCAATACCCATATAATGGCCACGGAAGCTTCTAATTATGCCCAGTAC					
-MEXICO	CT CAGGACGG AC AATAC CA AT ATGGCCAC GA GC TC AATTATGC CAGTAC					
	5710v	5720v	5730v	5740v	5750v	5760v
-BURMA	CGGGTTGCCCCGTGCCACAATCCGTTACCGCCCGCTGGTCCCCAATGCTGTGGCGGTTAC					
-MEXICO	CGGGTTGCCCCG GC AC ATCCGTTACCG CC CT GT CC AATGC GT GG GG TA					
					trpE- (C2) I->	
	5770v	5780v	5790v	5800v	5810v	5820v
-BURMA	GCCATCTCCATCTCATTCTGGCCACAGACCACCACCACCCCGACGTCCGTTGATATGAAT					
-MEXICO	GCTATATCCATTTCTTTCTGGCCTCAAACAACCACAACCCCTACATCTGTTGACATGAAT					
	5830v	5840v	5850v	5860v	5870v	5880v
-BURMA	TCAATAACCTCGACGGATGTTCTGTTATTTTAGTCCAGCCCGGCATAGCCTCTGAGCTTGTG					
-MEXICO	TC AT AC TC AC GATGT G ATT T GT CA CC GGCATAGC TCTGA T GT					
	5890v	5900v	5910v	5920v	5930v	5940v
-BURMA	ATCCCAAGTGAGCGCCTACACTATCGTAACCAAGGCTGGCGCTCCGTCGAGACCTCTGGG					
-MEXICO	ATCCCAAG GAGCGCCT CACTA CG AA CAAGG TGGCGCTC GT GAGAC TCTGG					
	5950v	5960v	5970v	5980v	5990v	6000v
-BURMA	GTGGCTGAGGAGGAGGCTACCTCTGGTCTTGTATGCTTTTGCATACATGGCTCACTCGTA					
-MEXICO	GT GCTGAGGAGGA GC ACCTC GGTCTTGT ATG T TGCATACATGGCTC C GT					
	6010v	6020v	6030v	6040v	6050v	6060v
-BURMA	AATTCCTATACTAATACACCCCTATACCGGTGCCCTCGGGCTGTTGGACTTTGCCCTTGAG					
-MEXICO	AA TCCTATAC AATAC CC TATACCGGTGCCCT GG T TGGACTTTGCC T GAG					
	6070v	6080v	6090v	6100v	6110v	6120v
-BURMA	CTTGAGTTTCGCAACCTTACCCCCGGTAACACCAATACGCGGGTCTCCCGTTATTCCAGC					
-MEXICO	CTTGAGTTTCGCAA CT ACC CC GTAACACCAATAC CG GT TCCCGTTA TCCAGC					
					I-SG3-->	
	6130v	6140v	6150v	6160v	6170v	6180v
-BURMA	ACTGCTCGCCACCGCCTTCGTGCGGGTGGGACGGGACTGCGGAGCTCACCACCACGGCT					
-MEXICO	ACTGCTCG CAC C CG G G GACGGGACTGC GAGCT ACCAC AC GC					
	ACTGCTCGTCACTCCGCCCCGAGGGGCC---GACGGGACTGCGGAGCTGACCACAACCTGCA					

Fig. 2B

	6190v	6200v	6210v	6220v	6230v	6240v
-BURMA	GCTACCCGCTTTATGAAGGACCTCTATTTTACTAGTACTAATGGTGTGCGGTGAGATCGGC					
	GC ACC G TT ATGAA GA CTC A TTTAC G TAATGG GT GGTGA TCGGC					
-MEXICO	GCCACCAGGTTTCATGAAAGATCTCCACTTTACCGCCTTAATGGGGTAGGTGAAGTCGGC					
	6250v	6260v	6270v	6280v	6290v	6300v
-BURMA	CGCGGGATAGCCCTCACCCCTGTTCAACCTTGCTGACACTCTGCTTGGCGGCCTGCCGACA					
	CGCGGGATAGC CT AC T T AACCTTGCTGACAC CT CT GGCGG CT CCGACA					
-MEXICO	CGCGGGATAGCTCTAACATTACTTAACCTTGCTGACACGCTCCTCGGCGGGCTCCCCGACA					
	6310v	6320v	6330v	6340v	6350v	6360v
-BURMA	GAATTGATTTTCGTCGGCTGGTGGCCAGCTGTTCTACTCCCGTCCCGTTGTCTCAGCCAAT					
	GAATT ATTTTCGTTCGGCTGG GG CA CTGTT TA TCCCG CC TTGTCTCAGCCAAT					
-MEXICO	GAATTAAATTTTCGTTCGGCTGGCGGGCAACTGTTTTATTCCCGCCCGTTGTCTCAGCCAAT					
	6370v	6380v	6390v	6400v	6410v	6420v
-BURMA	GGCGAGCCGACTGTTAAGTTGTATACATCTGTAGAGAATGCTCAGCAGGATAAGGGTATT					
	GGCGAGCC AC GT AAG T TATACATC GT GAGAATGCTCAGCAGGATAAGGGT TT					
-MEXICO	GGCGAGCCAACCGTGAAGCTCTATACATCAGTGGAGAATGCTCAGCAGGATAAGGGTGT					
	6430v	6440v	6450v	6460v	6470v	6480v
-BURMA	GCAATCCCGCATGACATTGACCTCGGAGAATCTCGTGTGGTTATTTCAGGATTATGATAAC					
	GC ATCCC CA GA AT GA CT GG GA TC CGTGTGGT ATTCAGGATTATGA AAC					
-MEXICO	GCTATCCCCACGATATCGATCTTGGTGATTTCGGTGTGGTCAATTCAGGATTATGACAAC					
	6490v	6500v	6510v	6520v	6530v	6540v
-BURMA	CAACATGAACAAGATCGGCGGACGCCCTTCTCCAGCCCCATCGCGCCCTTTCTCTGTCCCTT					
	CA CATGA CA GATCGGCC AC CC TC CC GC CCATC CG CCTTT TCTGT CT					
-MEXICO	CAGCATGAGCAGGATCGGCCCCACCCCGTTCGCTGCGCCATCTCGGCCCTTTTCTGTCTCT					
	6550v	6560v	6570v	6580v	6590v	6600v
-BURMA	CGAGCTAATGATGTGCTTTGGCTCTCTCTCACCGCTGCCGAGTATGACCACTCCACTTAT					
	CGAGC AATGATGT CTTTGGCT TC CTCAC GC GCCGAGTATGACCACTCCACTTA					
-MEXICO	CGAGCAAATGATGTACTTTGGCTGTCCCTCACTGCAGCCGAGTATGACCACTCCACTTAC					
	6610v	6620v	6630v	6640v	6650v	6660v
-BURMA	GGCTCTTCGACTGGCCCCAGTTTATGTTTCTGACTCTGTGACCTTGGTTAATGTTGCGACC					
	GG TC TC ACTGGCCC GTTTAT T TC GAC GTGAC TTGGT AATGTTGCGAC					
-MEXICO	GGGTCTCAACTGGCCCCGTTTATATCTCGGACAGCGTGACTTTGGTGAATGTTGCGACT					
	6670v	6680v	6690v	6700v	6710v	6720v
-BURMA	GGCGCGCAGGCCGTTGCCCGGTGCTCGATTGGACCAAGGTCACACTTGACGGTCGCCCC					
	GGCGCGCAGGCCGT GCCCG TCGCT GA TGG CCAA GTCAC CT GACCG CG CCC					
-MEXICO	GGCGCGCAGGCCGTAGCCCGATCGCTTGACTGGTCCAAAGTCACCCTCGACGGCGGCCCC					
	6730v	6740v	6750v	6760v	6770v	6780v
-BURMA	CTCTCCACCATCCAGCAGTACTCGAAGACCTTCTTTGTCTGCGCTCCGCGGTAAGCTC					
	CTC C AC T AGCA TA TC AAGAC TTCTTTGT CT CC CT CG GG AAGCTC					
-MEXICO	CTCCCGACTGTTGAGCAATATTCCAAGACATTCTTTGTGCTCCCCCTTCGTGGCAAGCTC					

Fig. 2C

	6790v	6800v	6810v	6820v	6830v	6840v
-BURMA	TCTTTCTGGGAGGCAGGCACAACCTAAAGCCGGGTACCCCTTATAATTATAACACCACTGCT					
	TC TT TGGGAGGC GGCACAAC AAAGC GG TA CCTTATAATTATAA AC ACTGCT					
-MEXICO	TCCCTTTTGGGAGGCCCGGCACAACAAAGCAGGTTATCCTTATAATTATAATACTACTGCT					
	6850v	6860v	6870v	6880v	6890v	6900v
-BURMA	AGCGACCAACTGCTTTGTCGAGAATGCCGCCGGGCACCGGGTCGCTATTTCCACTTACACC					
	AG GACCA T CT T GA AATGC GCCGG CA CGGGTCGC ATTTT AC TA ACC					
-MEXICO	AGTGACCAGATTCTGATTGAAAATGCTGCCGCCCATCGGGTCGCCATTTCAACCTATACC					
	6910v	6920v	6930v	6940v	6950v	6960v
-BURMA	ACTAGCCTGGGTGCTGGTCCCGTCTCCATTTCTGCGGTTGCCGTTTTAGCCCCCACTCT					
	AC AG CT GG GC GTCC GTC CCATTTCTGCGG GC GTTTT GC CC C CTC					
-MEXICO	ACCAGGCTTGGGGCCGGTCCGGTCCGCTTTCTGCGGCCGCGGTTTTGGCTCCACGCTCC					
	I-406.3-2-->					
	6970v	6980v	6990v	7000v	7010v	7020v
-BURMA	GCGCTAGCATTTGCTTGAGGATACCTTGGACTACCCCTGCCCGCGCCCATACTTTTGATGAT					
	GC CT GC TGCT GAGGATAC TT GA TA CC G CG GC CA AC TTTGATGA					
-MEXICO	GCCCTGGCTCTGCTGGAGGATACTTTTGATTATCCGGGGCGGGCGCACATTTGATGAC					
	7030v	7040v	7050v	7060v	7070v	7080v
-BURMA	TTCTGCCCAGAGTGCCGCCCCCTTGGCCTTCAGGGCTGCGCTTTCCAGTCTACTGTGCT					
	TTCTGCCC GA TGCCGC C T GGCCT CAGGG TG GCTTTCCAGTC ACTGTGCT					
-MEXICO	TTCTGCCCTGAATGCCGCGCTTTAGGCCTCCAGGGTTGTGCTTTCCAGTCAACTGTGCT					
	<--SG3-I					
	<--406.3-2-I					
	7090v	7100v	7110v	7120v	7130v	7140v
-BURMA	GAGCTTCAGCGCCTTAAGATGAAGGTGGGTAAAACTCGGGAGTTGTAGTTTATTTGCTTG					
	GAGCT CAGCGCCTTAA T AAGGTGGGTAAAACTCGGGAGTTGTAGTTTATTTG TG					
-MEXICO	GAGCTCCAGCGCCTTAAAGTTAAGGTGGGTAAAACTCGGGAGTTGTAGTTTATTTGGCTG					
	7150v	7160v	7170v	7180v	7190v	
-BURMA	TGCCCCCTTCTTTCTGTTGC-----TTATTTCTCATTTCTGCGTTCCGCGCTCCC					
	TGCCC CCT CTT TGC TTATTTT TTTCT GT CCGCGCTCCC					
-MEXICO	TGCCCACCTACTTATATCTGCTGATTTCCCTTTATTTCTTTTCTCGGTCCCGCGCTCCC					
	<-I ORF2					
	v 7195					
-BURMA	TGA					
	TGA					
-MEXICO	TGA					

Fig. 2D

	10	20	30	40	50	60
HEV (B)	MNNMSFAAPMGSRPCALGLFCCCSCFCLCCPRHRPVSRLAAVVGAAAVPAVVSGVTGL					
	X:::	:	:	:	:	:
HEV (M)	MNNMWFAAPMGSPPCALGLFCCCSCFCLCCPRHRPVSRLAAVVGAAAVPAVVSGVTGL					
	10	20	30	40	50	60

		406.4-2			
	70	80	90	100	110
HEV (B)	ILSPSQSPIFIQPTFPSPMSPLRPGLDLVFANPPDHSAPLGVTRPSAPPLPHVVDLPQLG				
	:	:	:	:	:
HEV (M)	ILSPSQSPIFIQPTPLPQTLPLRPGLDLAFANQPGHLAPLGEIRPSAPPLPPVADLPQPG				
	70	80	90	100	110

HEV (B)	PRRZ
	::X
HEV (M)	LRRZ

Fig. 3

	10	20	30	40	50	60
HEV (B)	MRPRPILLLLLMFLPMLPAPPPGQPSGRRRGRRSGGSGGGFWGDRVDSQPFAIPYIHPTN					
	X::					
HEV (M)	MRPRPLLLLLFLFLPMLPAPPTGQPSGRRRGRRSGGTGGGFWGDRVDSQPFAIPYIHPTN					
	10	20	30	40	50	60

				62K	
	70	80	90	100	110
HEV (B)	PFAPDVTAAAGAGPRVRQPARPLGSAWRDQAQRPAVASRRRPTTAGAAPLTAVAPAHDTF				
	::				
HEV (M)	PFAPDVAAASGSGPRLRQPARPLGSTWRDQAQRPSAASRRRPATAGAAALTAVAPAHDTF				
	70	80	90	100	110

	130	140	150	160	170
HEV (B)	PVPDVSRRGAILRRQYNLSTSPILTSSVATGTNLVLYAAPLSPLLPLQDGTINTHIMATEAS				
	::				
HEV (M)	PVPDVSRRGAILRRQYNLSTSPILTSSVASGTNLVLYAAPLNPPPLPLQDGTINTHIMATEAS				
	130	140	150	160	170

			C-2		
	190	200	210	220	230
HEV (B)	NYAQYRVARATIRYRPLVPNAVGGYAISISFWPQTTTTPTSVDMNSITSTDVRILVQPGI				
	::				
HEV (M)	NYAQYRVARATIRYRPLVPNAVGGYAISISFWPQTTTTPTSVDMNSITSTDVRILVQPGI				
	190	200	210	220	230

	250	260	270	280	290
HEV (B)	ASELVIPSERLHYRNQGWRSVETSGVAEEEEATSGLVMLCIHGSLVNSYNTNTPYTGAIGLL				
	::				
HEV (M)	ASELVIPSERLHYRNQGWRSVETSGVAEEEEATSGLVMLCIHGSPVNSYNTNTPYTGAIGLL				
	250	260	270	280	290

			SG3		
	310	320	330	340	350
HEV (B)	DFALELEFRNLTPGNTINTRVSRYSSTARHRLRRGADGTAEITTTAATRFMKDLYFTSTNG				
	::				
HEV (M)	DFALELEFRNLITCNTINTRVSRYSSTARHS-ARGADGTAEITTTAATRFMKDLHFTGLNG				
	310	320	330	340	350

	370	380	390	400	410
HEV (B)	VGEIGRGIALTLFNLADTLTGGLPTELISSAGQLFYSRPVVSANGEPTVKLYTSVENAQ				
	::				
HEV (M)	VGEVGRGIALTLINLADTLTGGLPTELISSAGQLFYSRPVVSANGEPTVKLYTSVENAQ				
	360	370	380	390	410

	430	440	450	460	470
HEV (B)	QDKGIAIPHDIDLGESRVVIQDYDNQHEQDRPTPSPAPSRPFVLRANDVLWLSLTAAEY				
	::				
HEV (M)	QDKGVAIPHDIDLGDSRVVIQDYDNQHEQDRPTPSPAPSRPFVLRANDVLWLSLTAAEY				
	420	430	440	450	470

**Fig. 4A**

490            500            510            520            530            540  
 HEV (B) DQSTYGSSTGFPVYVSDSVTLVNVATGAQAVARSLDWTKVITLDGRPLSTIQQYSKTFFVLP  
 .....  
 HEV (M) DQSTYGSSTGFPVYISDSVTILVNVATGAQAVARSLDWSKVITLDGRPLPTVEQYSKTFFVLP  
 480            490            500            510            520            530

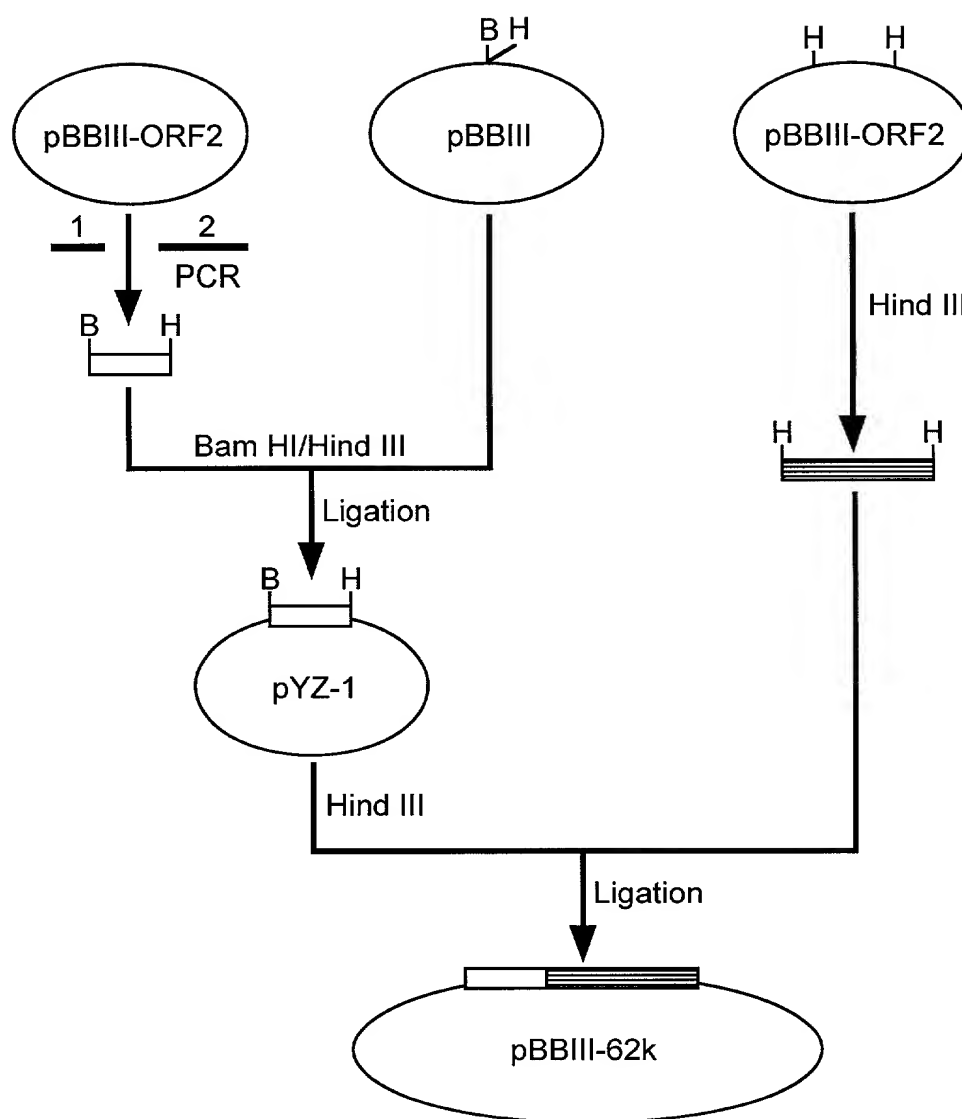
550            560            570            580            590            600  
 HEV (B) LRGKLSFWEAGITTKAGYPYNYNTTASDQLIVENAAGHRVAISTYTTSLGAGPVSISAVAV  
 .....  
 HEV (M) LRGKLSFWEAGITTKAGYPYNYNTTASDQILIENAGHRVAISTYTTTLGAGPVAISAAAV  
 540            550            560            570            580            590

406.3-2  
 610            620            630            640            650  
 HEV (B) LAPHSALALLEDITLDYPARAHTFDDFCPECRPLGLQGCAFQSTVAELQRLKVMVGKTR  
 .....  
 HEV (M) LAPRALALLEDITFDYPCRAHTFDDFCPECRALGLQGCAFQSTVAELQRLKVKVGKTR  
 600            610            620            630            640            650

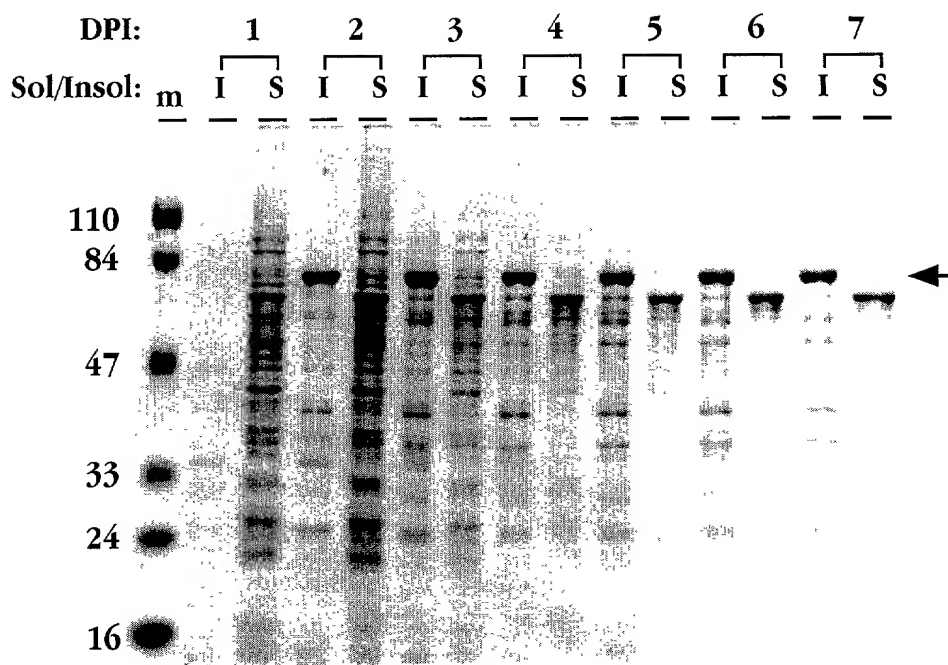
HEV (B) ELZ  
 :::  
 HEV (M) ELZ

**Fig. 4B**

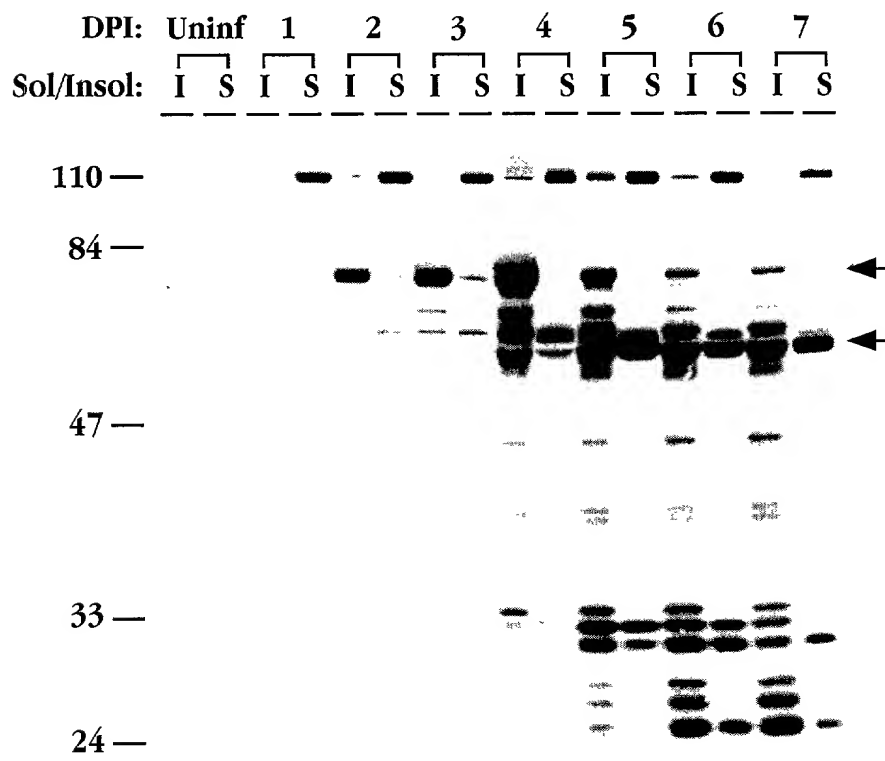




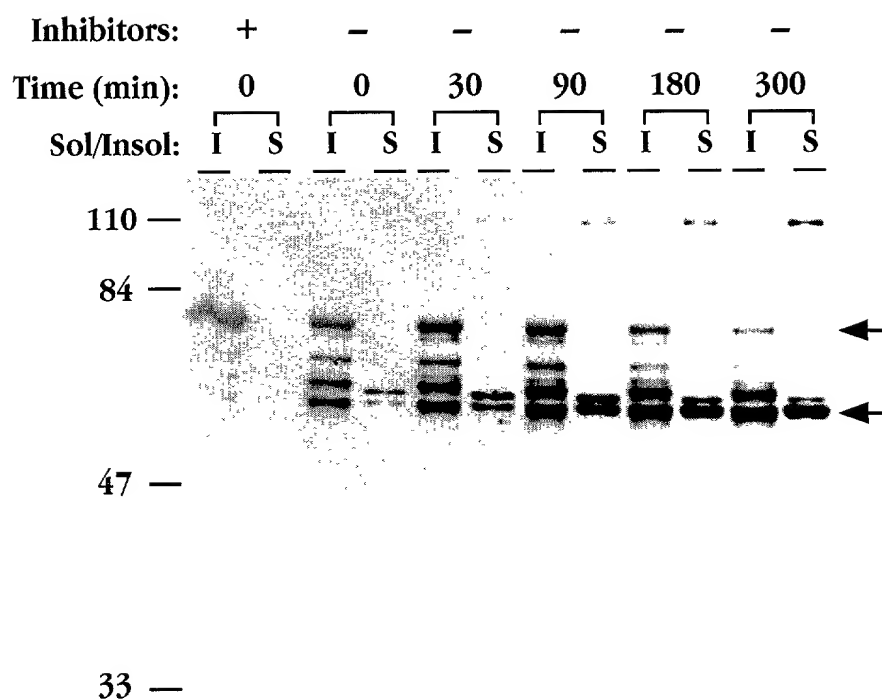
**Fig. 5**



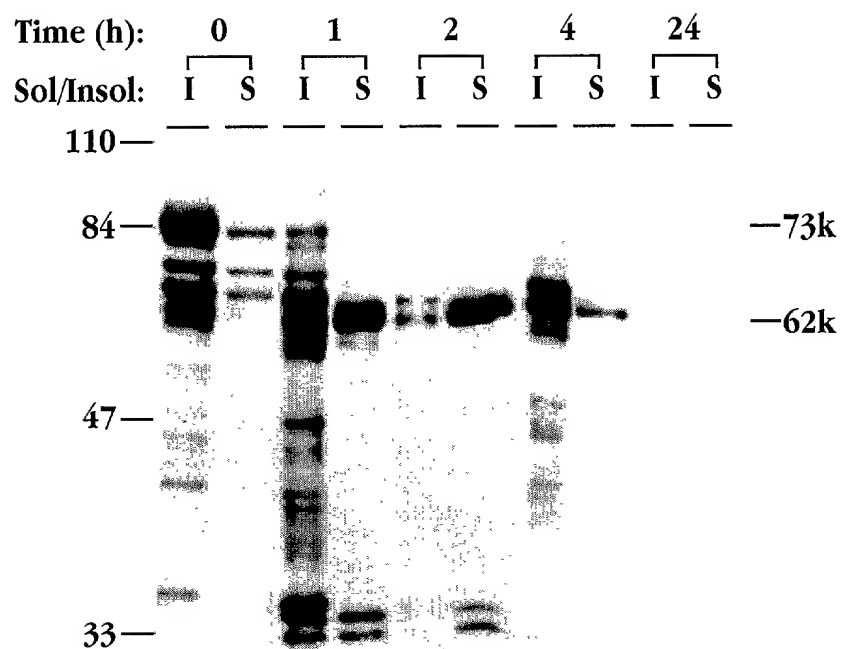
**Fig. 6A**



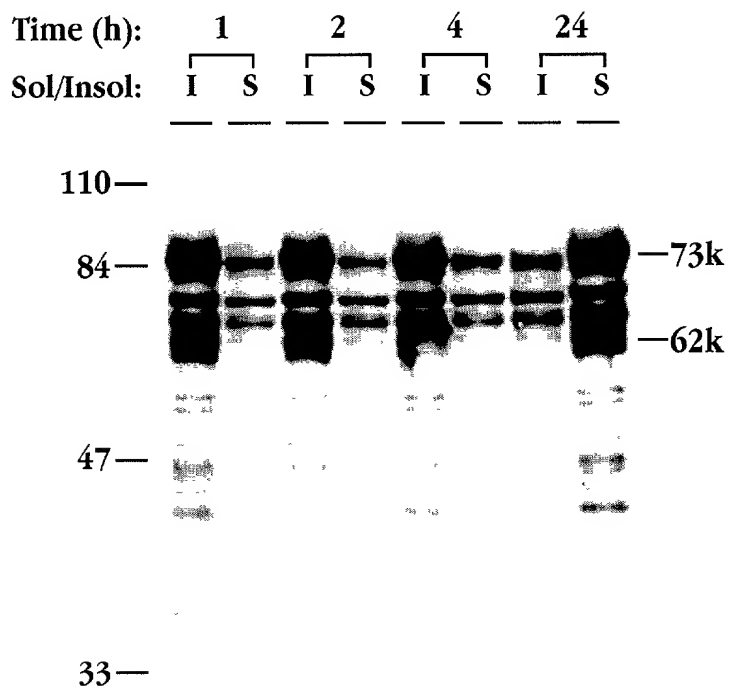
**Fig. 6B**



**Fig. 7**

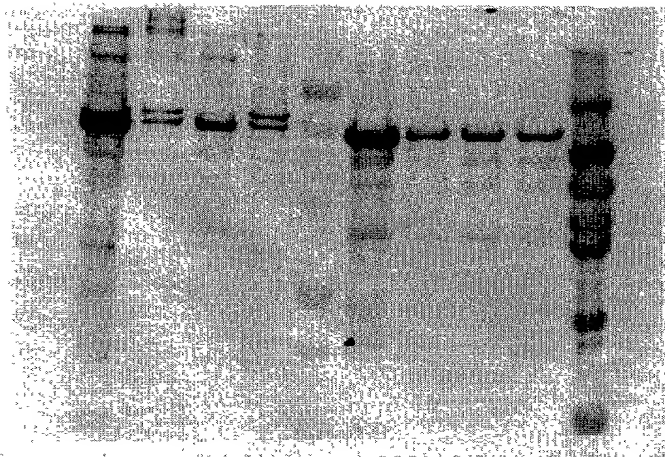


**Fig. 8A**



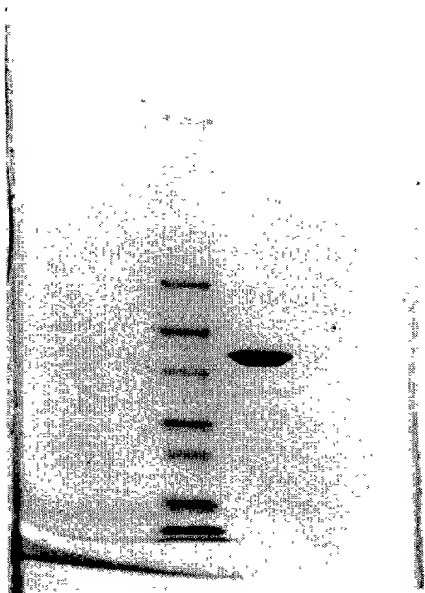
**Fig. 8B**

1 2 3 4 5 6 7 8 9 10



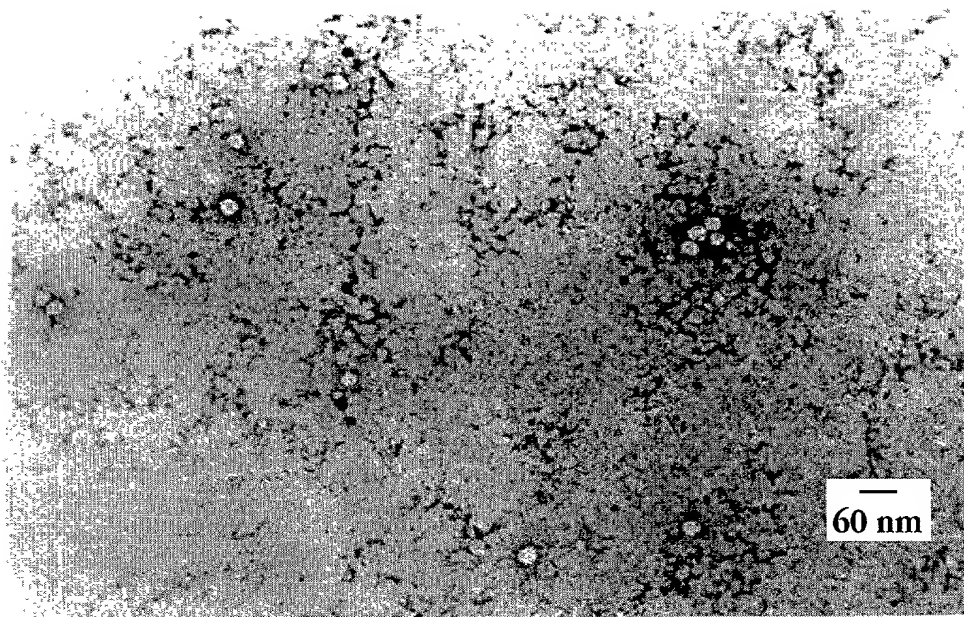
**Fig. 9**

1 2

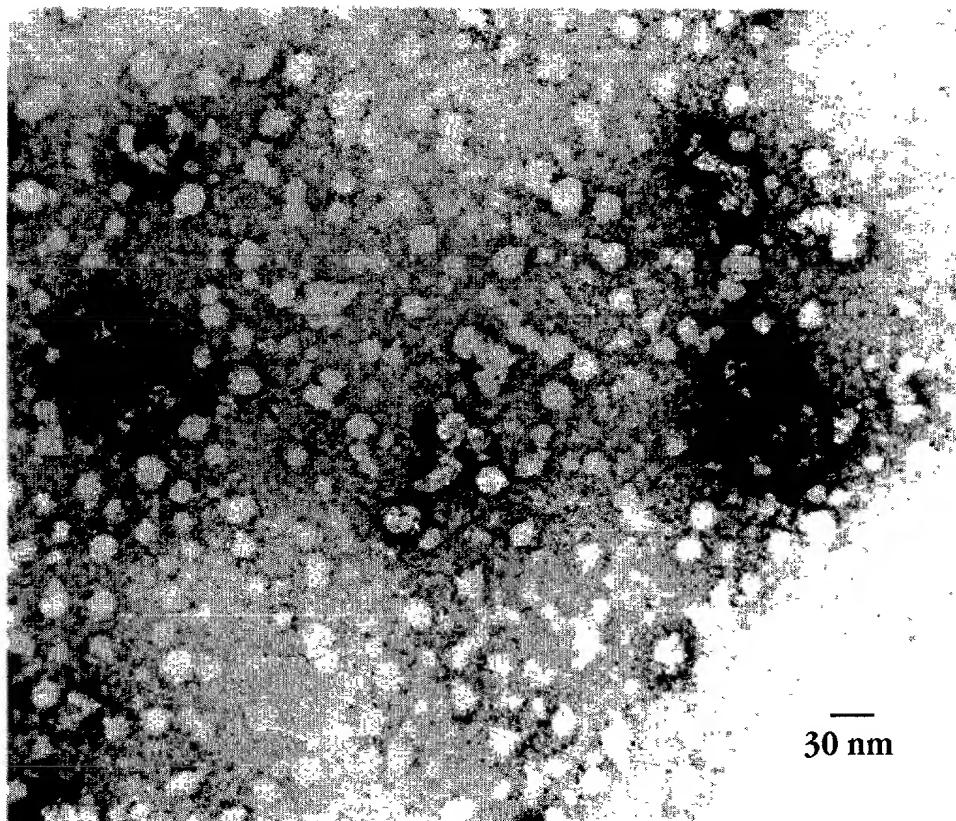


**SDS-PAGE**

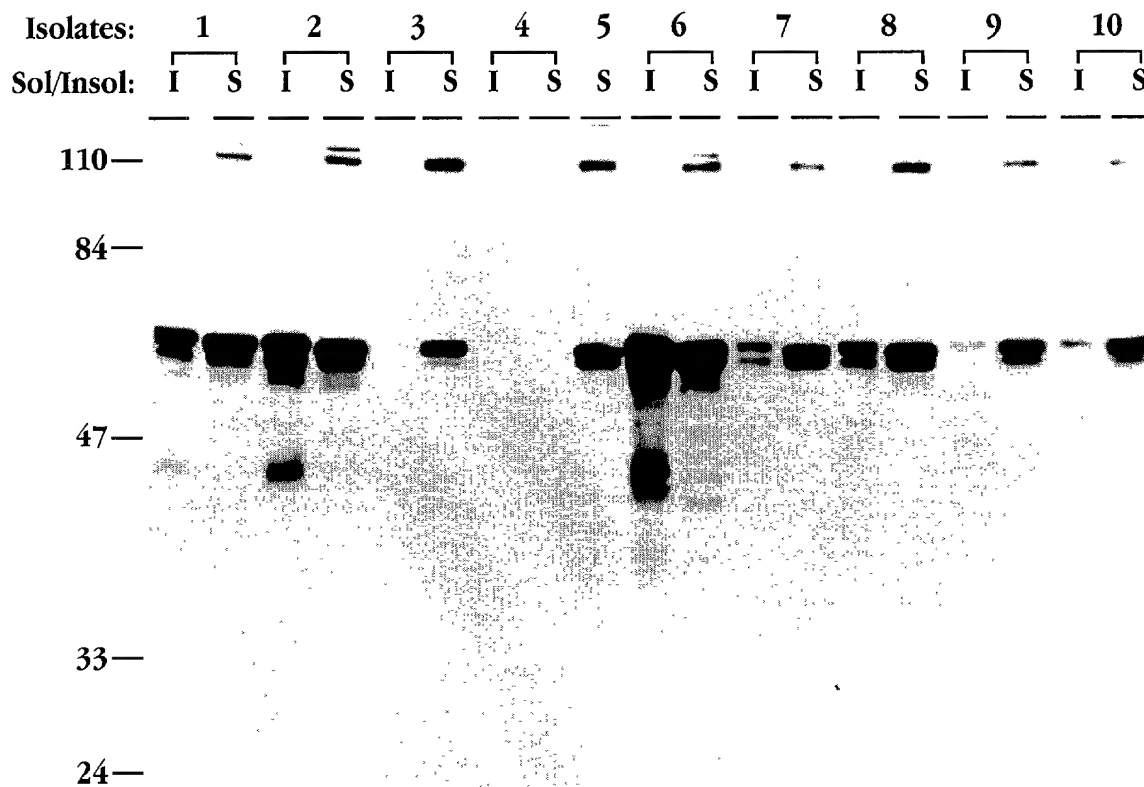
**Fig. 10**



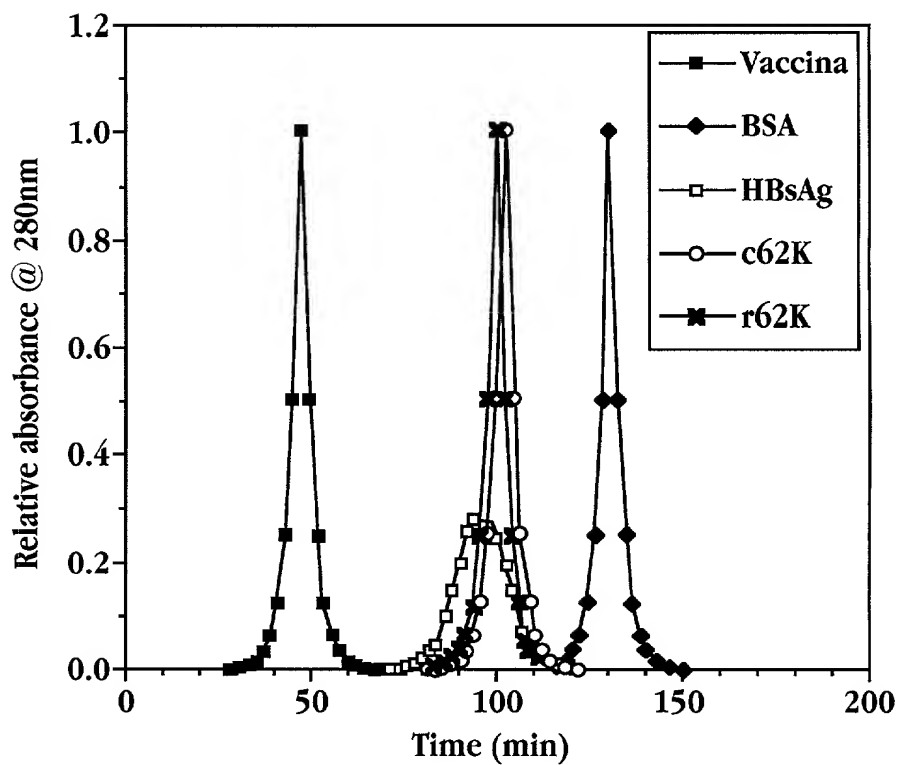
**Fig. 11A**



**Fig. 11B**



**Fig. 12**

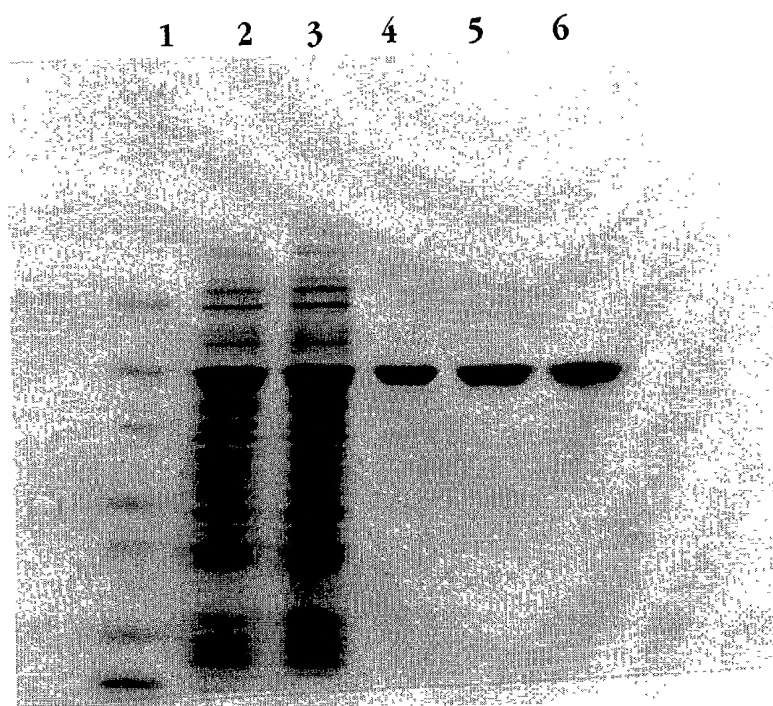


**Fig. 13**

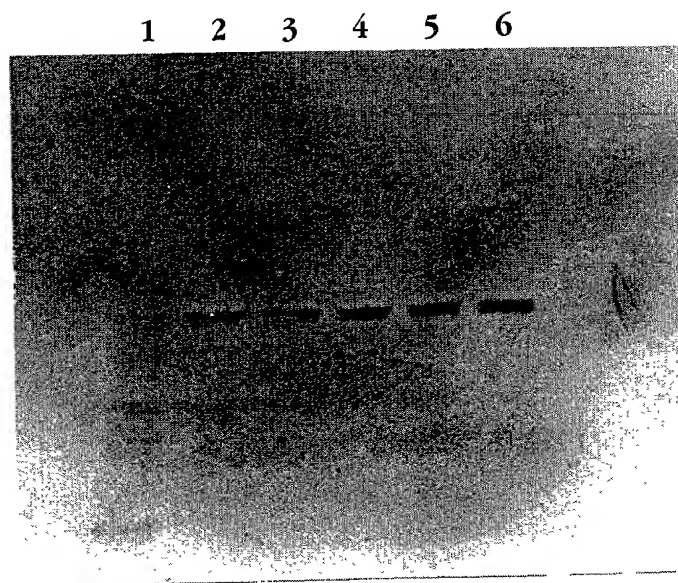
	10	20	30
MEXICAN (SEQ ID NO:18)	ANQPGHLAPLGEIRPSAPPLPPVADLPQPGLRR		
BURMA (SEQ ID NO:17)	ANPPDHSAPLGVTRPSAPPLPHVVDLPQLGPRR		
	10	20	30

**Fig. 16**

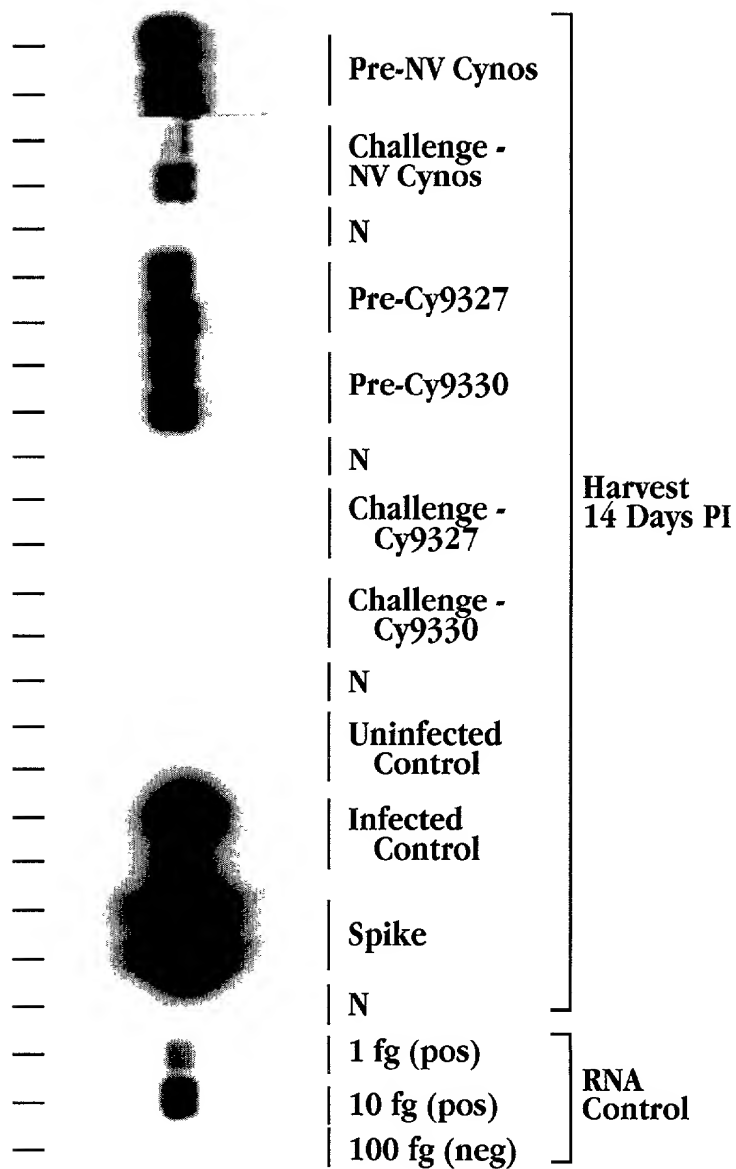




**Fig. 14A**



**Fig. 14B**



**Fig. 15**